

Abstracts

These selected abstracts and titles from the world literature are arranged in the following sections:

Syphilis and other treponematoses (clinical and treatment; serology and biological false positive phenomenon; pathology and experimental)
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Non-specific genital infection
Reiter's disease

Trichomoniasis
Candidosis
Genital herpes
Other sexually transmitted diseases
Public health and social aspects
Miscellaneous

Syphilis and other treponematoses (clinical and treatment)

Penicillin treatment of early syphilis II

JF MAHONEY, RC ARNOLD, BL STERNER, *ET AL* (Staten Island, New York, USA). *JAMA* 1984; 251: 2005-10.

Penicillin and early syphilis

HL ARNOLD (Honolulu, Hawaii, USA). *JAMA* 1984; 251: 2011-3.

Eight years experience of cephadrine in the treatment of syphilis

A THEODORIDIS, A VAGENA, A VARELZIDIS, AND J CAPETANAKIS (University of Athens School of Medicine, Athens, Greece). *Current Therapeutic Research* 1984; 35: 184-7.

Secondary syphilis mimicking systemic lupus erythematosus

DM SKILLRUD AND TW BUNCH (Mayo Clinic, Rochester, Minnesota, USA). *Arthritis Rheum* 1983; 26: 1529-31.

Transverse myelitis due to meningovascular syphilis

EP HARRIGAN, TJ McLAUGHLIN, AND RG FELDMAN (Boston University School of Medicine, Boston, Massachusetts, USA). *Arch Neurol* 1984; 41: 337-8.

The authors describe the case of a 51 year old woman admitted to hospital with a one month history of constipation, urinary retention, and overflow, and a two week history of numbness in the buttocks extending gradually down each leg. She had painful tingling in her feet when walking,

and midline lumbar pain that was worse when lying supine. Five months before admission she had a non-itchy dry rash on her trunk and extremities, with lesions between five and 15 mm in diameter.

Clinical findings on admission were of diminished position sense in the lower extremities and increased pinprick sense below the T5 dermatome. Muscle tone in the legs was also diminished. She had an extensor plantar response on the left. The cranial nerves and arms gave normal results to neurological tests.

A sample of cerebrospinal fluid was obtained, and test results showed: total cells $259 \times 10^6/l$ with 74% lymphocytes; protein concentration 2.34 g/l. For some reason no tests for syphilis were performed. Her leg weakness became a flaccid paraplegia, and only then was a rapid plasma reagin test performed, which gave a positive result. A Venereal Disease Research Laboratory test on the CSF then gave a positive result with a titre of 1/16.

She was given intravenous penicillin (but no quantity or duration is stated or whether any steroids were given to cover a possible Herxheimer reaction) and made a partial recovery, her position sense remaining impaired. The authors also discuss different treatment regimens for neurosyphilis.

G D Morrison

Syphilitic enteritis

D SCHLOSSBERG, FR RUDY, FW JACKSON, AND LB DUMALAG (Polyclinic Medical Center, Harrisburg, Pennsylvania, USA). *Arch Intern Med* 1984; 144: 811-4.

The authors report the history of a 40 year old man who complained of passing four to six watery stools a day and of fever, nausea, and vomiting. The stools did not contain blood or mucus. Barium studies showed prominent folds in the upper small bowel

and a prolonged transit time. The illness subsided without treatment after four days. Similar episodes occurred during the following year at four to eight week intervals.

After one year he was found to have perianal and mouth ulcers, hair loss, hearing loss with tinnitus, and blurred vision with papilloedema. A Venereal Disease Research Laboratory (VDRL) test gave a positive result at a titre of 1/64. His cerebrospinal fluid (CSF) showed: cells $124 \times 10^6/l$ (all lymphocytes), protein concentration 0.39 g/l, and a positive VDRL test result. A biopsy of a perianal ulcer showed treponemes on silver staining, but an intestinal biopsy, although showing villous atrophy and inflammatory cells in the lamina propria, showed no treponemes either by silver or fluorescent staining.

He was given 20 MU penicillin a day for 10 days with steroid cover initially. After 12 days' treatment his CSF cell count was normal but the VDRL test result remained positive. Two months after treatment a small bowel biopsy had reverted to nearly normal. Further questioning disclosed that he had a cold sore in a nasolabial fold two months before his illness began, which had healed spontaneously. This is a very rare manifestation of secondary syphilis.

G D Morrison

Syphilis (pathology and experimental)

Immunisation of rabbits with *Spirochaeta aurantia* does not induce resistance to *Treponema pallidum*

S GRAVES, L DRUMMOND, AND R STRUGNELL (Monash University Medical School, Prahran, Victoria, Australia). *Sex Transm Dis* 1984; 11: 1-5.

Rabbits were immunised with viable *Spirochaeta aurantia*, a free living, facultative anaerobic spirochete that is similar in some biochemical characteristics to *Treponema pallidum*, a parasitic, microaerophilic spirochete. Single and multiple immunisations with living *S. aurantia*, with or without Freund's incomplete adjuvant, Freund's complete adjuvant, or heat killed *T. pallidum*, were carried out over a four month period. Living *S. aurantia* was neither toxic nor virulent for rabbits. Immunised rabbits produced a high level of agglutinating antibody to *S. aurantia* but no antibody to *T. pallidum*, as assessed by the *T. pallidum* hemagglutination test. Immunised rabbits were challenged with multiple intradermal inoculations of 100 viable *T. pallidum* (Nichols strain) and compared with unimmunised rabbits similarly infected. Immunisation with *S. aurantia* did not protect against *T. pallidum* infection. Thus *S. aurantia* appears not to be suitable as a potential vaccine against infection with *T. pallidum*.

Authors' summary

Enumeration of *Treponema pallidum* cells cultivated in vitro by an enzyme-linked immunosorbent assay

DL COX, RA MOECKLI, AND KM KEANEY (SRI International, Menlo Park, California, USA). *Infect Immun* 1984; **44**: 103-6.

Efficacy of aztreonam in treatment of experimental syphilis in rabbits

SA LUKEHART, S BAKER-ZANDER, AND KK HOLMES (University of Washington, Seattle, Washington, USA). *Antimicrob Agents Chemother* 1984; **25**: 390-1.

Gonorrhoea (clinical)

Cutaneous gonococcal abscess: a case report

NJ FIUMARA AND R EISEN (Massachusetts Department of Public Health, Boston, Massachusetts, USA). *Sex Transm Dis* 1984; **11**: 34-5.

Disseminated gonococcal infection (editorial)

Lancet 1984; **i**: 832.

Gonococcal infections in Gabon (Haut-Ogoové)

F YVERT, JY RIOU, E FROST, AND B IVANOFF (Centre International de Recherche Médicale, Franceville, Gabon). *Pathol Biol (Paris)* 1984; **32**: 80-4.

Gonorrhoea (microbiology)

Antigen detection for the diagnosis of gonorrhoea

WE STAMM, B COLE, C FENNELL, ET AL (Harborview Medical Center, Seattle, Washington, USA). *J Clin Microbiol* 1984; **19**: 399-403.

Rapid confirmatory identification of *Neisseria gonorrhoeae* with lectins and chromogenic substances

DM YAJKO, A CHU, AND WK HADLEY (University of California, San Francisco, California, USA). *J Clin Microbiol* 1984; **19**: 380-2.

Antigenic variation during infection with *Neisseria gonorrhoeae*: detection of antibodies to surface proteins in sera of patients with gonorrhoea

K ZAK, J-L DIAZ, D JACKSON, AND JE HECKELS (Southampton General Hospital, Southampton, Hants, UK). *J Infect Dis* 1984; **149**: 166-74.

Serum sensitivity of *Neisseria gonorrhoeae*: the role of lipopolysaccharide

WM SHAFER, K JOINER, LF GUYMON, ET AL (Emory University School of Medicine, Atlanta, Georgia, USA). *J Infect Dis* 1984; **149**: 175-83.

Purification and partial characterisation of the opacity-associated proteins of *Neisseria gonorrhoeae*

MS BLAKE AND EC GOTSCHLICH (Rockefeller University, New York, USA). *J Exp Med* 1984; **159**: 452-61.

Common pathways of invasion of mucosal barriers by *Neisseria gonorrhoeae* and *Neisseria meningitidis*

ZA MCGEE AND DS STEPHENS (University of Utah School of Medicine, Salt Lake City, Utah, USA). *Survey and Synthesis of Pathology Research* 1984; **3**: 1-10.

Arthritis in rabbits induced by killed *Neisseria gonorrhoeae* and gonococcal lipopolysaccharide

DL GOLDENBERG, JI REED, AND PA RICE (Boston University School of Medicine, Boston, USA). *J Rheumatol* 1984; **11**: 3-8.

Lipopolysaccharide banding patterns of *Neisseria meningitidis* and *Neisseria gonorrhoeae*

TR PARR JR AND LE BRYAN (University of Calgary, Calgary, Alberta, Canada). *J Clin Microbiol* 1984; **19**: 558-60.

β -lactamase producing *Neisseria gonorrhoeae*

KG SINGH, G SINGH, P KAUR, SS PANDEY, AND D PAL (Banaras Hindu University, Varanasi, Uttar Pradesh, India). *Indian J Med Res* 1984; **79**: 337-9.

Binding of *Neisseria gonorrhoeae* by lectin like receptors on human phagocytes

KF KINANE, DM WEIR, CC BLACKWELL, AND FP WINSTANLEY (University of Edinburgh School of Medicine, Edinburgh, UK). *J Clin Lab Immunol* 1984; **13**: 107-10.

Validity of an enzyme immunoassay for detection of *Neisseria gonorrhoeae* antigens

CJ PAPASIAN, WR BARTHOLOMEW, AND D AMSTERDAM (Erie County Laboratory, Buffalo, New York, USA). *J Clin Microbiol* 1984; **19**: 347-50.

Inhibition of anion transport in human erythrocytes by pilated *Neisseria gonorrhoeae*

GM WISEMAN, CF MARTIN, AND PJ McNICOL (University of Manitoba, Winnipeg, Manitoba, Canada). *Can J Microbiol* 1984; **30**: 52-6.

Conservation of peptide structure of outer membrane protein-macro molecular complex from *Neisseria gonorrhoeae*

MV HANSEN AND CE WILDE III (Indiana University School of Medicine, Indianapolis, Indiana, USA). *Infect Immun* 1984; **43**: 839-43.

Common β -lactamase specifying plasmid in *Haemophilus ducreyi* and *Neisseria gonorrhoeae*

B ANDERSON, WL ALBRITTON, J BIDDLE, AND SR JOHNSON (Centers for Disease Control, Atlanta, Georgia, USA). *Antimicrob Agents Chemother* 1984; **25**:296-7.

Antimicrobial susceptibility of strains of *Neisseria gonorrhoeae* isolated in Rome
MM FANTAZIA, E FELITICI, AND F MONDELLO (Istituto Superiore Sanita, Rome, Italy). *Microbiologica* 1984; **7**:79-84.

Gonorrhoea (treatment)

A comparison of rosoxacin and ampicillin and probenecid in the treatment of uncomplicated gonorrhoea

AI COHEN, MF REIN, AND RC NOBLE (University of Kentucky, College of Medicine, Lexington, Kentucky, USA). *Sex Transm Dis* 1984; **11**:24-7.

Laboratory acquired gonococcal conjunctivitis: successful treatment with single-dose ceftriaxone

TR ZAJDOWICZ, SB KERBS, SW BERG, AND WO HARRISON (US Naval Hospital, San Diego, California, USA). *Sex Transm Dis* 1984; **11**:28-9.

Ceftizoxime (FK-749) is effective therapy for urethritis caused by penicillinase-producing *Neisseria gonorrhoeae*

WO HARRISON, PL SANCHEZ, DJ LANCASTER, ET AL (US Naval Hospital, San Diego, California, USA). *Sex Transm Dis* 1984; **11**:30-1.

Rosoxacin in the therapy of uncomplicated gonorrhoea

B ROMANOWSKI, TW AUSTIN, FLM PATTISON, ET AL (Social Hygiene Service, Edmonton, Alberta, Canada). *Antimicrob Agents Chemother* 1984; **25**:455-7.

Non-specific genital infection

Diagnosis of urethritis: role of polymorphonuclear leukocyte counts in Gram-stained smears

OP ARYA, H MALLINSON, BE ANDREWS, AND M SILLIS (Royal Liverpool Hospital, Liverpool, UK). *Sex Transm Dis* 1984; **11**:10-7.

Polymorphonuclear leukocytes (PMNs) in the Gram stained urethral smears of 236 consecutive sexually active men without gonorrhoea were analysed quantitatively. The frequency distribution of the highest count of PMNs per high power field showed a count of four PMNs to be the cut off point separating men with urethritis from those without urethritis. This cut off point correlated well with the presence of *Chlamydia trachomatis* as well as with turbid urine. However, the PMN count in the Gram stained urethral smear was found to be more sensitive than the appearance of the urine in the diagnosis of urethritis among those with minimal symptoms and signs and not harboring *C. trachomatis*. This study also showed a close similarity as regards clinical features and PMN count in Gram stained urethral smears between those harbouring *Ureaplasma urealyticum* and those with no organisms.

Authors' summary

Characteristics of a Gram-negative anaerobe isolated from men with non-gonococcal urethritis

EAR FONTAINE, SP BORRIELLO, D TAYLOR-ROBINSON, AND HA DAVIES (Clinical Research Centre, Watford Road, Harrow, Middlesex, UK). *J Med Microbiol* 1984; **17**:129-40.

Epididymitis: studies on its aetiology and pathogenesis with special consideration of *Chlamydia trachomatis* and *Ureaplasma urealyticum*

HC BECKER, W WEIDNER, HG SCHIEFER, ET AL (University of Giessen, Giessen, FRG). *Dtsch Med Wochenschr* 1984; **109**:569-75.

Chlamydial infections

Reinfection of the mouse genital tract with *Chlamydia trachomatis*: the relationship of antibody to immunity

M TUFFREY, P FALDER, AND D TAYLOR-ROBINSON (Clinical Research Centre, Watford Road, Harrow, Middlesex, UK). *Br J Exp Pathol* 1984; **65**:51-8.

A colposcopic and histological study of experimental chlamydial cervicitis in marmosets

AP JOHNSON, MJ HARE, GD WILBANKS, ET AL (Clinical Research Centre, Watford Road, Harrow, Middlesex, UK). *Br J Exp Pathol* 1984; **65**:59-66.

Reiter's disease

Aortic insufficiency in Reiter's syndrome of juvenile onset

O HUBSCHER AND JGV SUSINI (Center for Medical Education and Clinical Investigation, Buenos Aires, Argentina). *J Rheumatol* 1984; **11**:94-5.

Trichomoniasis

Trichomonal vaginitis in Nigerian women

BO OGUNBANJO AND AO OSOBA (University College Hospital, Ibadan, Nigeria). *Trop Geogr Med* 1984; **36**:67-70.

Candidosis

Ketoconazole in the prevention of experimental candidal vaginitis

JD SOBEL AND G MULLER (Medical College of Pennsylvania, Philadelphia, Pennsylvania, USA). *Antimicrob Agents Chemother* 1984; **25**:281-2.

A comparison between oral ketoconazole and topical miconazole in the treatment of vaginal candidiasis

J PUOLAKKA AND R TUIMACA (University of Oulu, Oulu, Finland). *Acta Obstet Gynecol Scand* 1983; **62**:575-8.

Inhibition and killing of *Candida albicans* in vitro by five imidazoles in clinical use
E LEFLER AND DA STEVENS (Santa Clare Valley Medical Center, San Jose, California, USA). *Antimicrob Agents Chemother* 1984; **25**:450-4.

Genital herpes

The use of monoclonal antibodies to differentiate isolates of herpes simplex types 1 and 2 by neutralisation and reverse passive haemagglutination tests

EA BUCKMASTER, MP CRANAGE, CS McLEAN, RRA COOMBES, AND A MINSON (University of Cambridge, Cambridge, UK). *J Med Virol* 1984; **13**: 193-6.

Detection of herpes simplex virus in clinical specimens by an enzyme linked immunosorbent assay

TG LAWRENCE, DB BUDZKO, AND BW WILCKE (Michigan Department of Public Health, Lansing, Michigan, USA). *Am J Clin Pathol* 1984; **81**: 339-40.

An enzyme linked immunosorbent assay for the detection of herpes simplex virus is described. The test can be performed in four hours, does not require specialised equipment, and uses relatively inexpensive and commercially available reagents. It detected herpes simplex virus (HSV) in 51% of specimens found to be positive by cell culture. In contrast direct immunofluorescence detected HSV in only 1% of cell culture positive specimens. It also has the advantage of detecting non-viable virus.

G D Morrison

A double blinded study of medium to long term safety of Inosiplex in the treatment of recurrent genital herpes virus disease

WH WICKETT Jr, RD MILLER, F HOEHLER *ET AL* (University of California, Irvine Orange, California, USA). *Current Therapeutic Research* 1984; **35**: 177-83.

Genital herpes infection in pregnant women near term

AJ JACOB, J EPSTEIN, DL MADDEN, AND JL SEVER (NINCDS, Bethesda, Maryland, USA). *Obstet Gynecol* 1984; **63**: 480-4.

Syndrome d'immunodéficience acquise (AIDS) révélé par un herpès génital sévère. A propos de deux cas

J De MAUBEUGE, F MASCART-LEMONE, N CLUMECK, *ET AL* (Hôpital Universitaire de Saint Pierre, Brussels, Belgium). *Dermatologica* 1984; **168**: 105-11.

Prevalence of genital herpes simplex virus in pregnancy

T BASAR, VL BHARGAVA, Y PANDE, AND P SETH (All India Institute of Medical Science, New Delhi, India). *Indian J Med Res* 1984; **79**: 327-32.

Incidence of herpes simplex virus types 1 and 2 in penile lesions of college men

JJ DOCHERTY, MA LOHSE, MF DELLARIA, *ET AL* (Penn State University Microbiology Program, University Park, Pennsylvania, USA). *J Med Virol* 1984; **13**: 163-70.

Other sexually transmitted diseases

Human papilloma virus type 16 and early cervical neoplasia

CP CRUM, H IKENBERG, RM RICHART, AND L GISSMAN (Columbia University College of Physicians and Surgeons, New York, USA). *N Eng J Med* 1984; **310**: 880-2.

Flat warts (condylomata) of the uterine cervix are sometimes cytologically atypical and have abnormal mitotic figures; they are thought to be possible precursors of cancer of the cervix. Flat warts are caused by any of a number of types of human papilloma-viruses (HPVs), one of which (HPV 16) has been previously associated with invasive cancer of the cervix. To determine whether HPV 16 is also associated with flat warts with abnormal mitoses, we analysed 23 flat warts by DNA-hybridisation techniques for the presence of HPV 16 and other HPV types, and correlated the results with the histology. Of 10 lesions with abnormal mitotic figures, seven contained HPV 16, and one contained another type of HPV. Of 13 lesions without abnormal mitotic figures, only one contained HPV 16, and seven contained other types of HPV.

We conclude that the presence of HPV 16 correlates with the presence of abnormal mitotic figures in flat warts of the cervix, and that this type of flat wart is a precursor of invasive cancer of the cervix.

Authors' summary

Plasmid mediated tetracycline resistance in *Haemophilus ducreyi*

WL ALBRITTON, IW MACLEAN, LA SLANEY, *ET AL* (Centers for Disease Control, Atlanta, Georgia, USA). *Antimicrob Agents Chemother* 1984; **25**: 187-90.

Genital wart virus infections: nuisance or potentially lethal?

A SINGER, PG WALKER, AND DJ McCANCE (Royal Northern Hospital, London N7, UK). *Br Med J* 1984; **288**: 735-6.

Comparison of media for the primary isolation of *Haemophilus ducreyi*

H NSANZE, FA PLUMMER, ABN MAGGWA, *ET AL* (Department of Medical Microbiology, University of Nairobi, Nairobi, Kenya). *Sex Transm Dis* 1984; **11**: 6-9.

Monoclonal antibodies reactive with all strains of *Haemophilus ducreyi*

EJ HANSEN AND TA LOFTUS (University of Texas Health Science Center, Dallas, Texas, USA). *Infect Immun* 1984; **44**: 196-8.

Cluster of cases in the acquired immune deficiency syndrome. Patients linked by sexual contact.

DM AUERBACH, WW DARROW, HW JAFFE, AND JW CURRAN (Centers for Disease Control, Atlanta, Georgia, USA). *Am J Med* 1984; **76**: 487-91.

Public health and social aspects

General considerations on endemic treponematoses in the rural Sahel region of Upper Volta

L MONJOUR, P DRUILHE, A FRIBOURG-BLANC, *ET AL* (Groupe Hospitalier Pitié-Salpêtrière, F-75013, Paris, France). *Acta Trop (Basel)* 1983; **40**: 375-82.

Four village populations in Upper Volta were studied by the authors. Three villages were in the Sahel region and one in the Sudan region. The Sahel region villages of Oursi (inhabited by Songhrais farmers and their families) and Boulel (inhabited by Rimibés farmers and their families) were contrasted with the village of Timbolo-Gargassa, inhabited by the semi-nomadic Bellahs (who are somewhat related to the Waragwarag Touaregs). These latter villagers live 10 km from their water supply. The Sudan region village of Donsé is occupied by Mossi tribespeople who are also farmers.

Of 895 people examined, 373 lived at Oursi, 144 at Boulel, 118 at Timbolo-

Gargassa, and 260 at Donsé. An indirect immunofluorescent test for antitreponemal antibody was carried out along with a clinical examination for signs of venereal or endemic syphilis.

The Oursi villagers had a prevalence of positive tests of 12·6% overall, being low up to 9 years old, but reaching a peak at 40. The overall prevalence at Boulel was 42·6%; after the age of 40 it was 72·5%. The village with the worst incidence was Timbolo Gargassa, where 66·6% of 3 year old children (the number examined at that age is not stated) were positive but by 24

years 97% were positive. Congenital syphilis was rare (one 6 month child in Timbolo Gargassa). No cases of yaws were found in the Sahel region. Clinical signs of bejel were found in 4% of positive patients at Oursi, 20% at Boulel, and 39% at Timbolo Gargassa. No clinical evidence of bejel was found at Donsé where the prevalence of positive serology was only 3·4%. The authors wonder whether the communal use of drinking water skins at Timbolo Gargassa may be a cause of the high incidence of infection. A neighbouring village of the same nomadic tribe who do

not use this practice had a prevalence of 38% positive serology.

G D Morrison

Prostitution and sexually transmitted disease

WH PATTERSON (Royal North Shore Hospital, Sydney, Australia). *Med J Aust* 1984; **140**:252.

Gonorrhoea in a Sydney house of prostitution

B DONOVAN (Sydney, Australia). *Med J Aust* 1984; **140**:268-71.